

AMENDMENTS TO THE CLAIMS

1-22. (Canceled)

23. (Currently Amended) A container comprising:

object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and ~~at least one receiver~~ a plurality of fixed receivers of received signal energy;

a set of objects for object presence detection internal to said container, such that an object of said set of objects is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency, wherein said set of objects is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array; and

a container wall substantially surrounding said object presence detection equipment and said set of objects, said wall operable to shield said equipment and said set of objects from extraneous external signals.

24. (Previously Presented) The container of claim 23 wherein said set of objects comprises a tape cartridge.

25. (Canceled)

26. (Currently Amended) The container of claim ~~[[25]]~~ 23 wherein said set of objects comprises a plurality of arrays of objects.

27. (Previously Presented) The container of claim 26 wherein each array of said plurality of arrays of objects has associated transmitters, receivers, analyzing circuitry, and data processing equipment.

28. (Previously Presented) The container of claim 23 wherein said transmitted and said received signal energy are selected from electromagnetic radio-frequency energy, sonic energy, and ultrasonic energy.

29. (Previously Presented) The container of claim 28 wherein said object is operable to modify said transmitted signal energy of a selected frequency by resonating at said frequency.

30. (Previously Presented) The container of claim 29 wherein said resonating is enhanced by variable resonant material characteristics selected from length, width, thickness, material composition, electrical resistance, electrical excitation, application of tensile force, application of compressive force, temperature, electrical induction, and electrical capacitance.

31. (Previously Presented) The container of claim 29 wherein objects in a subset of said objects within said set of objects are interchangeable and resonate at the same frequency.

32. (Previously Presented) The container of claim 23 wherein said at least one transmitter and said at least one receiver are combined into at least one transceiver.

33. (Currently Amended) A method for identifying a subset of objects within a set of objects in a container, said method comprising:

transmitting a signal of a selected frequency within said container;

modifying said transmitted signal at [[a]] said selected frequency by at least one object of said set of objects, wherein said at least one object is a member of said subset, and wherein said subset comprises a plurality of said objects responsive to said selected frequency;

receiving said modified signal within said container;

analyzing and processing said received signal; and

shielding the interior of said container from extraneous external signals.

34. (Previously Presented) The method of claim 33 wherein said set of objects comprises a tape cartridge.

35. (Previously Presented) The method of claim 33 wherein said set of objects is disposed in a configuration selected from a linear array, a two-dimensional array, a three-dimensional array, and a plurality of said arrays.

36. (Previously Presented) The method of claim 33 wherein said transmitted and said received signals are selected from electromagnetic radio-frequency signals, sonic signals, and ultrasonic signals.

37. (Previously Presented) The method of claim 36 wherein said modifying is performed by resonating at said selected frequency.

38–41. (Canceled)

42. (Currently Amended) A tape storage container comprising:
object presence detection equipment internal to said container, said equipment comprising at least one transmitter of transmitted signal energy and at least one receiver of received signal energy;
a plurality of tape cartridges for object presence detection internal to said container, wherein said plurality of tape cartridges is disposed in a configuration selected from a linear array, a two-dimensional array, and a three-dimensional array, such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency; and
a metallic outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges, said metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals.

43. (Canceled)

44. (Currently Amended) The container of claim ~~[[43]]~~ 42 wherein said plurality of tape cartridges comprises a plurality of arrays of objects.

45. (Previously Presented) The container of claim 44 wherein each array of said plurality of arrays of tape cartridges has associated transmitters, receivers, analyzing circuitry, and data processing equipment.

46. (Previously Presented) The container of claim 42 wherein said transmitted and said received signal energy are selected from electromagnetic radio-frequency energy, sonic energy, and ultrasonic energy.

47. (Previously Presented) The container of claim 46 wherein said object is operable to modify said transmitted signal energy of a selected frequency by resonating at said frequency.

48. (Previously Presented) The container of claim 47 wherein said resonating is enhanced by variable resonant material characteristics selected from length, width, thickness, material composition, electrical resistance, electrical excitation, application of tensile force, application of compressive force, temperature, electrical induction, and electrical capacitance.

49. (Previously Presented) The container of claim 47 wherein tape cartridges in a subset of said tape cartridges within said plurality of tape cartridges are interchangeable with one another and resonate at the same frequency.

50. (Previously Presented) The container of claim 42 wherein said at least one transmitter and said at least one receiver are combined into at least one transceiver.

51. (New) The method of claim 33 wherein said analysis determines the number of members of said subset present within said container.

52. (New) The method of claim 33 wherein said set of set objects comprises a plurality of subsets, wherein each said subset is responsive to a different said selected frequency.